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anticipated by Ahr et al. (U.S. 5,997,520).

Claim 1 is directed to an absorbent article for alerting a wearer to urination. The absorbent article comprises a bodyside liner, an absorbent core, and a urine-permeable inflatable envelope located between the bodyside liner and the absorbent core. The urine-permeable inflatable envelope comprises a surfactant and a system capable of generating carbon dioxide upon being wetted with urine.

Ahr et al. disclose a disposable absorbent article having an expandable component, which provides a seal for reducing the leakage of body exudates from between the disposable absorbent article and the wearer's skin. The expandable component can be inflatable, and comprises a gas evolving material and an activating material separate from the gas evolving material by a breakable barrier. The breakable barrier comprises a breakable packet that can be broken by the wearer at the point of use of the absorbent article to combine the gas evolving material and the second activating material. Once combined, the gas evolving material and the second activating material generate a gas such as carbon dioxide, which inflates the expandable component to provide a seal between the article and the wearer's skin. The gas evolving material is preferably a combination of bicarbonate, such as sodium bicarbonate or potassium bicarbonate, and a powered acid. The only second activating material disclosed is water.

Significantly, Ahr et al. fail to disclose a urine-permeable inflatable envelope comprising a surfactant and a system capable of generating carbon dioxide upon being wetted with urine as required by claim 1. These are requirements of claim 1 and are significant aspects of Applicants' invention.

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The Office appears to equate the second activating material (i.e., water) of the Ahr et al. reference with the surfactant of instant claim 1. However, the surfactant component located in the urine-permeable inflatable envelope of the present invention is present as a foaming agent.¹ Specifically, when a gas is produced upon urination² from the gas generating system located in the envelope, the gas interacts with the surfactant and foam comprised of bubbles is produced. These bubbles inflate the envelope and cause it to swell and push against the bodyside liner which, in turn, pushes against the skin of the wearer to alert the wearer to the urination. By contrast, the water of the Ahr et al. reference will not foam and produce bubbles upon activation. With all due respect, it appears the water acts to solubilize and activate the gas evolving material to facilitate the production of gas.

As stated in M.P.E.P. §2131, a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. Since Ahr et al. fail to disclose a urine-permeable inflatable envelope comprising a surfactant in combination with a system capable of generating carbon dioxide upon being wetted with urine, Ahr et al. fail to disclose each and every

¹Instant specification on page 13, paragraph 0036.

²It is worth noting that the present invention does not inflate until the absorbent article has been wetted by urine. This is significant as the pressure produced through inflation of the envelope alerts the wearer that he has urinated, aiding the toilet training process. The cited art does not disclose a urine permeable envelope; the "envelope" of the art traps gas inside and swells and is gas and liquid impermeable.

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limitation of claim 1. As such, claim 1 is novel over the Ahr et al. reference.

Claims 2 and 11 depend directly from claim 1. As such, claims 2 and 11 are patentable for the same reasons as claim 1 set forth above, as well as for the additional limitations they require.

Claim 17 is similar to claim 1 and further requires the urine-permeable inflatable envelope to comprise a surfactant and a system capable of generating a gas upon being wetted with urine. As such, claim 17 is patentable for the same reasons as claim 1 set forth above, as well as for the additional elements it requires.

Claims 20 and 27 depend directly on claim 17. As such, claims 20 and 27 are patentable for the same reasons as claim 17 set forth above, as well as for the additional elements they require.

2. Rejection of Claim 33 Under 35 U.S.C. §102(b)

Reconsideration is requested of the rejection of claim 33 under 35 U.S.C. §102(b) as being anticipated by Glaug et al. (U.S. 5,649,914).

Claim 33 is directed to an absorbent article for alerting a wearer to urination comprising a bodyside liner, an absorbent core, and a urine-permeable inflatable envelope located between the bodyside liner and the absorbent core. The urine-permeable inflatable envelope comprises a surfactant, a system capable of generating carbon dioxide upon being wetted with urine, and a temperature change agent.

Glaug et al. disclose a toilet training aid for use with an absorbent article. The toilet training aid is in the form of a

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pad that creates a noticeable, distinct feeling during urination, for example a temperature change sensation, a wet sensation, a dimensional change sensation, or some combination thereof to signal that urination is occurring. In one embodiment, the pad includes a casing, a temperature change member, a dimensional change member, and an attachment means for attaching the pad to a garment, such as a training pant. The casing includes a wet sensation layer designed to provide a wet or damp sensation against the skin upon urination and a support layer. Optionally, the support layer can be treated with a surfactant to aid in liquid transfer. Both the temperature change member and the dimensional change member are located between the wet sensation layer and the support layer. The temperature change member is responsive to contact with an aqueous solution such as urine to either absorb or release heat. The dimensional change member comprises a material that rapidly undergoes a change in at least one dimension when exposed to an aqueous solution. The dimensional change material can include expandable foams, compressed cellulosic sponges, or the like.

Significantly, Glaug et al. fail to disclose an inflatable envelope comprising a surfactant and a system capable of generating carbon dioxide upon being wetted with urine. This is a significant requirement of claim 33 and an important aspect of Applicants' invention.

As stated above, for a claim to be anticipated, M.P.E.P. §2131 requires each and every element as set forth in the claim to be found, either expressly or inherently described, in a single prior art reference. Since Glaug et al. fail to disclose a urine-permeable inflatable envelope comprising a surfactant and a system capable of generating carbon dioxide upon being

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wetted with urine, Glaug et al. fail to disclose each and every limitation of claim 33. As such, claim 33 is novel over the Glaug et al. reference.

3. Rejection of Claims 3-10, 12-13, 16, 22-26, 28-29, and 32 Under 35 U.S.C. §103(a)

Reconsideration is requested of the rejection of claims 3-10, 12-13, 16, 22-26, 28-29, and 32 under 35 U.S.C. §103 (a) as being unpatentable over Ahr et al.

Claim 3 depends from claim 1 and further requires that the system capable of generating carbon dioxide upon being wetted with urine comprises an acid and a base, wherein the acid is potassium bitartrate and the base is sodium bicarbonate. Claim 1 is patentable for the reasons set forth above. Claim 1 has not been rejected under 35 U.S.C. §103(a). Therefore, claim 3, which depends from claim 1, is patentable for the same reasons as set forth above. In particular, the cited art fails to disclose or suggest a urine-permeable inflatable envelope comprising a surfactant in combination with the system capable of generating carbon dioxide upon being wetted with urine. Claims 4-10, 12-13, and 16 depend directly or indirectly from claim 1 and are patentable for the same reasons as claim 1, as well as for the additional elements they require.

Claim 22 depends from claim 17 and further requires the surfactant to be selected from the group consisting of anionic surfactants, nonionic surfactants, amphoteric surfactants, cationic surfactants, and combinations thereof. Claim 17 is patentable for the reasons set forth above. Claim 17 has not been rejected under 35 U.S.C. §103(a). Therefore, claim 22, which depends from claim 17, is patentable for the same reasons

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as claim 1 above. In particular, the cited art fails to disclose a urine-permeable inflatable envelope comprising a surfactant in combination with the system capable of generating carbon dioxide upon being wetted with urine. Claims 23-26, 28-29, and 32 depend directly or indirectly from claim 17 and are patentable for the same reasons as claim 17, as well as for the additional elements they require.

4. Rejection of Claims 1-2 and 16-21 Under 35 U.S.C. §103(a).

Reconsideration is requested of the rejection of claims 1-2 and 16-21 under 35 U.S.C. §103(a) as being unpatentable over Slavtcheff et al. (WO 01/56542).

Claims 1 and 17 are discussed above.

Slavtcheff et al. disclose a wiping article including a sachet having at least one water permeable wall and an effervescent cleanser composition. The effervescent cleanser composition generally includes from about 1 to about 80% of an alkaline material; from about 0.5 to about 80% of an acid material; and from about 0.1 to about 30% of a surfactant. When the alkaline material combines with the acid material in the presence of water, a gas such as carbon dioxide is generated. This effervescent reaction produces foam for cleansing the skin, leaving a squeaky clean rinsed feeling on the user's skin. Preferred alkaline materials are carbonates and bicarbonates and preferred acids are C₂-C₂₀ organic mono- and polycarboxylic acids. Additionally, the effervescent reaction expands the wiping articles to many times their dry size when contacted with water.

Significantly, Slavtcheff et al. fail to disclose an

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core, and a urine-permeable inflatable envelope located between the bodyside liner and the absorbent core and comprising a surfactant and a system capable of generating carbon dioxide upon being wetted with urine. Apparently recognizing these shortfalls, the Office states that it would be obvious to combine the gas-forming system and surfactant teachings of Slavtcheff et al. with the absorbent article layers well known to those skilled in the art to arrive at the absorbent article of claims 1 and 17. Applicants respectfully disagree.

In order for the Office to show a *prima facie* case of obviousness, M.P.E.P. §2143 requires that the Office must meet three criteria: (1) the prior art reference must teach or suggest all of the claim limitations; (2) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference, and (3) there must be some reasonable expectation of success. The Office has clearly failed to meet its burden under number (1) and/or (2) above, as the Slavtcheff et al. reference has not taught or suggested all of the claimed limitations and there is no motivation or suggestion to modify the Slavtcheff et al. reference to arrive at each and every limitation of Applicants' invention.

As noted above, Slavtcheff et al. fail to teach or suggest an absorbent article for alerting a wearer to urination comprising a bodyside liner, an absorbent core, and a urine-permeable inflatable envelope located between the bodyside liner and the absorbent core and comprising a surfactant and a system capable of generating carbon dioxide upon being wetted with urine.

Additionally, there is no motivation or suggestion to

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modify the Slavtcheff et al. reference to arrive at Applicants' invention. As noted above, Slavtcheff et al. use their effervescent cleansing composition comprising an alkaline material, an acid material, and a surfactant in a wipe to cleanse the user's skin, giving the user's skin a pleasant sensory feel. Specifically, the wipe, or sachet, allows the effervescent cleanser composition to exit the sachet to cleanse the skin. By contrast, the surfactant and system of Applicants' invention, which is capable of generating carbon dioxide upon being wetted with urine, remains contained in the inflatable envelope. As such, one skilled in the art would not and could not be motivated to use the composition of Slavtcheff et al. in an absorbent article for use as a toilet training aid as required in Applicants' invention. As the Slavtcheff et al. reference fails to suggest or teach an absorbent article for alerting a wearer to urination comprising a bodyside liner, an absorbent core, and a urine-permeable inflatable envelope located between the bodyside liner and the absorbent core, wherein urine-permeable inflatable envelope comprises a surfactant and a system capable of generating carbon dioxide upon being wetted with urine, claims 1 and 17 are patentable over the Slavtcheff et al reference.

Claims 2 and 16 depend directly or indirectly on claim 1. As such, claims 2 and 16 are patentable for the same reasons as claim 1 set forth above, as well as for the additional elements they require.

Claims 18-21 depend directly or indirectly on claim 17. As such, claims 18-21 are patentable for the same reasons as claim 17 set forth above, as well as for the additional elements they require.

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5. Rejection of Claims 34-45 and 48-53 Under 35 U.S.C. §103(a).

Reconsideration is requested of the rejection of claims 34-45 and 48-53 under 35 U.S.C. §103(a) as being unpatentable over Glaug et al. in view of Ahr et al.

Claim 34 depends from claim 33 and further requires that the system capable of generating carbon dioxide upon being wetted with urine comprise an acid and a base. Claim 33 is patentable for the reasons set forth above. Claim 33 has not been rejected under 35 U.S.C. §103(a). Even if claim 33 was rejected as being unpatentable over Glaug et al. in view of Ahr et al., claim 33 would be patentable as the cited references fail to teach or suggest each and every claim limitation of claim 33.

In particular, the Glaug et al. reference fails to disclose a surfactant and a system capable of generating carbon dioxide upon being wetted with urine. Apparently recognizing the shortcomings of the Glaug et al. reference alone, the Office attempts to find each and every element of Applicants' invention through a combination of the Glaug et al. and Ahr et al. references. Applicants assert, however, that the combination of Glaug et al. and Ahr et al. fails to overcome the shortcomings of Glaug et al. As noted above, Ahr et al. fails to teach or suggest a surfactant. At best, Ahr et al. teach a gas evolving material and water in an absorbent article, which provides a seal for reducing the leakage of body exudates from between the disposable absorbent article and the wearer's skin. As such, the combined cited references fail to teach each and every limitation of Applicants' invention.

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Regardless of whether the combination of the references shows each and every element (as noted above, Applicants assert that the references do not show each and every element), such a combination is improper as discussed herein and cannot properly be made to reject claim 33, or any other pending claims.

As noted above, in establishing a *prima facie* case of obviousness to render a claim unpatentable, M.P.E.P. §2142 requires, *inter alia*, that the Office must show some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to combine reference teachings to arrive at Applicants' claim. The mere fact that references can be combined or modified to arrive at the claimed subject matter does not render the resultant combination obvious, unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990).

Ahr et al. is not directed to a toilet training aid as stated by the Office. On the contrary, Ahr et al. discloses an absorbent article having an expandable component, which provides a seal for reducing the leakage of body exudates from between the article and the wearer's skin. Specifically, the wearer of the absorbent article expands the article at the point of use of the absorbent article. As such, why would one skilled in the art look to Ahr et al. for possible combination with the toilet training pad of Glaug et al.?

Additionally, the toilet training pad of Glaug et al. is desirably liquid-permeable.³ As such, one skilled in the art

³ Glaug et al. at column 12, lines 36-40 and lines 57-61.


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would not and could not be motivated to combine the composition in Glaug et al. designed for a liquid-permeable toilet training pad with the absorbent article of Ahr et al. There simply is no motivation to combine the Glaug et al. and Ahr et al. references. As such, the cited references fail to disclose or suggest each and every limitation of claim 33, and claim 33 is patentable over the cited references.

Claims 34-45 and 48-53 depend directly or indirectly on claim 33. As such, claims 34-45 and 48-53 are patentable for the same reasons as claim 33 set forth above, as well as for the additional elements they require.

In view of the above, Applicants respectfully request favorable reconsideration and allowance of all pending claims. The Commissioner is hereby authorized to charge any fee deficiency in connection with this Letter to Deposit Account Number 19-1345 in the name of Senniger, Powers, Leavitt & Roedel.

Respectfully Submitted,


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